#### THE WATER SYSTEM

The City's Water Services Department is responsible for the operation and maintenance of the City's revenue-producing waterworks system ("System"), which includes facilities for obtaining, purifying and delivering potable water for domestic, commercial and industrial use and for fire protection within the City and surrounding areas. It is also responsible for obtaining all necessary federal and state permits and compliance with applicable federal and state clean water laws and regulations permits.

## **Primary System**

The primary System includes a 240 million gallon per day treatment plant, four major pump stations, 14 repump stations, numerous water storage facilities, and approximately 2,700 miles of water mains. Treated water service is provided to approximately 164,000 retail customers inside and outside the City and 33 active wholesale customers. There are also connections with the transmission systems of six other regional water suppliers that can be activated in case of an emergency.

The City obtains its raw water for the primary system from a combination of surface and ground water sources. Surface water comes from the Missouri River and accounts for approximately 80% of the raw water. Ground water comes from a well field in the Missouri River aquifer and accounts for the remaining 20% of raw water. Water treatment is a four-step process that consists of sedimentation, softening, stabilization and filtration. The treated water produced by the Water Services Department meets current federal and state requirements for drinking water.

Water is pumped into the transmission system from storage reservoirs located at the water treatment plant, which is located on the north side of the Missouri River. The water transmission system is comprised of two essentially separate systems, one serving customers located north of the Missouri River and the other serving customers located south of the Missouri River. Water is delivered to the southern system through two tunnels under the Missouri River. The distribution systems include booster pumping stations and elevated, underground, and ground level water storage reservoirs. The existing treated water storage capacity is now 141 million gallons. The average daily flow during Fiscal Year 2012 was 115 million gallons per day with a peak day demand of 171 million gallons, which is about 71% of the primary treatment plant's design capacity.

#### **Atherton System**

The Atherton System currently provides wholesale service to one public water supply district, Jackson County PWSD #16. The Atherton System consists of three wells located about a mile from the Missouri River and a small treatment plant with a rated capacity of approximately 0.6 million gallons per day. The treatment plant consists of an aerator, a solids upflow contact unit, filters, pumps, chemical feeders, and a clearwell. The distribution system includes a transmission main to the water district.

#### **Additional Information**

The following table shows revenues generated by retail and wholesale customers of the System for the past five years.

# Water Revenues by Retail and Wholesale Customers (in 1,000s)

1	∃iscal	Year	: Ended	l Aprıl	. 30	)
---	--------	------	---------	---------	------	---

	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
Retail Customers Wholesale Customers	\$ 65,126 13,125	\$ 67,165 12,205	\$ 68,197 11,206	\$ 91,072 13,737	\$ 97,503 16,292
Total	\$ 78,251	\$ 79,369	\$ 79,403	\$ 104,809	\$ 113,795

The following table shows the number of System customers for the past five years.

## **Number of System Customers**

Fiscal Year Ended April 30

_	Tiotal Four Ended Tipin 30								
	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>				
Retail Customers Commercial/Industrial Wholesale Customers	137,650 15,354 32	141,401 15,239 33	143,226 15,600 34	144,000 15,000 34	147,448 16,160 33*				
Total	153,036	<u>156,673</u>	<u>158,860</u>	159,034	163,641				

<sup>\*</sup> Jackson County PWSD #15 stopped taking water from Kansas City on February 1, 2012. Jackson County PWSD #15 was serviced by the Atherton System, with an average monthly usage of 3,698 ccf. The approximately \$7,000 per month reduction in revenues represents less than 0.05% of monthly System revenues.

## **Management Initiatives**

The Water Services Department continues its efforts to improve operating efficiencies, customer service, and service reliability. In 2007 the Water Services Department began installation work associated with a new Automated Meter Reading ("AMR") system. Installation of the AMR system is complete. Improved accuracy, operating efficiencies, and enhanced revenue recovery will result from this undertaking. At present, approximately 95% of the estimated 164,000 meters in the System have already been affixed with AMR and the remaining meters will be changed as needed.

The Water Services Department will require significant capital additions to the System to meet future infrastructure renewal and replacement needs. That consideration is one of several that caused the Water Services Department to begin developing an Asset Management Program (the "**Program**") for both the System and the City's sanitary sewer system (which is also the responsibility of the Water Services Department) in FY 2008. Beginning with the sewer utility, the Program will establish levels of service, best management practices, and an implementation plan that is aimed at minimizing the life cycle costs of Water Services Department assets. The program was put on hold in Fiscal Year 2010 due to financial considerations. The City is currently negotiating with CDM Smith to review the status of the Asset Management Program and make recommendations for moving forward.

#### Security of the System

As a result of the terrorist attacks of September 11, 2001, the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (commonly known as the "Bioterrorism Act"), was signed into law on June 12, 2002. This law requires all community water systems serving more than 3,300 people to (1) conduct a vulnerability assessment; (2) certify to the United States Environmental Protection Agency ("USEPA") that the vulnerability assessment was completed by a date specified in the law; (3) submit a paper copy of the assessment to the USEPA; (4) prepare or revise the emergency response plan based on the results of the vulnerability assessment; and (5) certify to the USEPA the emergency response plan has been developed or revised by a certain date. The Water Services Department has focused significant attention on securing the System. Under the requirements of the Bioterrorism Act, the City has conducted appropriate security activities and provided all required certifications to appropriate federal authorities by the prescribed deadlines concerning assessments and response planning. The City also carries property insurance for Water Services Department property that includes the terrorism coverage referred to in the Terrorism Risk Insurance Act of 2002.

## Capital Improvement Program

Starting in 2007, the Water Services Department developed a five-year Capital Improvement Program ("CIP") through Fiscal Year 2012. The CIP is updated annually, with the current five-year period extending through Fiscal Year 2017. The CIP is intended to provide facilities to meet existing and anticipated federal and state water quality standards and to maintain a reliable water transmission system that can respond to changing patterns of water use throughout the System's service area. The CIP currently identifies an estimated \$220 million of specific major capital improvements, which are expected to be financed primarily through a combination of annual System revenues, contributions from local sources, available fund balances and bond proceeds.

A question to increase the water revenue bond authorization by \$250 million was presented to the voters on August 2, 2005. The voters approved the additional bond authorization by nearly a three to one margin. Of the \$250 million authorization, the City has previously issued water revenue bonds totaling \$141.6 million, leaving \$108.4 million of authorized but unissued bonds. The Water Services Department projects that the remaining authorization will be issued during Fiscal Years 2013 and 2014.

In November 2011, the Water Services Department entered into a contract to update the City's system wide water master plan. The Water Services Department last conducted a System planning study in 1996-1997. The purpose of this Comprehensive Water System Master Plan Update project is to analyze the performance, condition, hydraulic capacities, and improvements needed within the existing System to meet current and projected future water demands. This study is ongoing and intended to develop a capital improvements program with staged improvements up to Year 2035.

## Regulatory Requirements

<u>In General</u>. The City's water supply operations must comply with the federal Safe Drinking Water Act, 42 USC Sec. 300f *et seq.*, and its amendments, including the Bioterrorism Act. The City is also subject to the federal regulations (40 CFR Part 141 *et seq.*) promulgated under the Safe Drinking Water Act and its amendments. These statutory and regulatory requirements are administered by the USEPA through the Missouri Department of Natural Resources ("MDNR"). Regulations of these agencies pertain to the treatment and distribution of the City's drinking water.

In addition to federal requirements, the City must comply with State of Missouri requirements. The primary State laws concerned with water supply operations are found in the Missouri Safe Drinking Water Act (Sections 640.100 - 640.140, RSMo.) The State's Public Drinking Water Program is contained in state regulations at 10 CSR 60.

As a public water system, the City's water treatment facility operates under a permit from MDNR and must comply with rigorous drinking water standards. The City is in full compliance with its permit requirements.

The City has never been sanctioned for a violation of federal or state drinking water laws or regulations. The City is in compliance with the Bioterrorism Act.

## Largest Users of the System

The following table sets forth the ten largest users of the System and the percentage of total consumption applicable to each for the Fiscal Year ended April 30, 2012:

<u>User</u>	Type of Business	Annual Consumption (100 cubic feet)	Percentage of Total Consumption
City of Lee's Summit	Wholesale Water	1,390,387	4.09%
Jackson County Public	Wholesale Water	1,241,662	3.65%
Water Supply Dist. No. 1			
City of Belton	Wholesale Water	960,495	2.83%
City of Blue Springs	Wholesale Water	902,400	2.65%
City of Raymore	Wholesale Water	593,028	1.74%
Pollution Control Dept	Utility	473,051	1.39%
Raytown Water Company	Wholesale Water	465,216	1.37%
Veolia –Kansas City	Utility	403,892	1.19%
City of Platte City #4	Wholesale Water	330,140	0.98%
Public Water Dist. No. 2	Wholesale Water	285,266	0.84%
of Cass County			

## **Billing Procedures and Collections**

Water rates are reviewed annually by the City to determine if rate adjustments are required. Water rates are developed based on total costs of service and customer service requirements. The rate schedule for customers outside the City is designed to reimburse the City for operation and maintenance expense, depreciation expense, and to provide a reasonable rate of return on the plant investment serving these customers. Water rates were most recently increased on May 1, 2012 for Fiscal Year 2013.

Charges for water services are combined on a single bill with applicable wastewater and stormwater charges. A late payment service charge of 5% of the unpaid delinquent balance is applied to all metered water service, sanitary sewer service and stormwater fee bills remaining unpaid after the delinquent date. Water and wastewater services are subject to termination without further notice if a bill remains unpaid 20 days after the delinquent date. For one- and two-family dwellings, unpaid charges may become a lien on the property if the account is three or more months delinquent or the total amount of the delinquency is \$500 or more. For all other property classifications, unpaid charges may become a lien on the property if the account is three or more months delinquent or the total amount of the delinquency is \$1,000 or more. Water and wastewater service can be restored upon receipt of the full amount of the outstanding balance due, including a service restoration charge.

#### Rate Structure

In March 2012, the City approved the following water rates, representing a 10% water revenue rate increase, which became effective as of May 1, 2012.

			Seasonal	Off-Peak		
	<u>Servi</u>		Commodity Charge			
	Inside City	Outside	e City	\$2.34 per 100 cubic feet		
Meter	Billed	Bil	led	•		
Size (Inches)	<u>Monthly</u>	Mor	<u>nthly</u>	Fire Protec	ction Charge	
5/8	\$10.85	\$1	2.10	Connection	Rate per	
3/4	\$11.70	\$1	3.05	Size (Inches)	<u>Annum</u>	
1	\$14.30	\$1	5.95	4 or less	\$91.00	
1-1/2	\$17.80	\$1	9.80	6	\$268.00	
2	\$27.40	\$3	0.40	8	\$572.00	
3	\$93.50	\$9	6.00	10	\$1,028.00	
4	\$118.00	\$12	1.50	12	\$1,662.00	
6	\$176.00	\$18	1.00	16	\$3,541.00	
8	\$254.00	\$26	0.00			
10	\$333.00	\$34	8.00			
12	\$393.00	\$40	9.00			
		Commod	ity Charge			
<u>In</u>	side City		de City		Charge / 100	
Cubic	Charge / 100	Cubic	Charge / 100	<u>Wholesale</u>	<u>Cubic Feet</u>	
<u>Feet</u>	Cubic Feet	<u>Feet</u>	Cubic Feet	Unrestricted	\$1.95	
First 600	\$3.67			Restricted	\$1.89	
Next 4,400	\$4.08	First 5,000	\$3.45			
Next 995,000	\$3.19	Over 5,000	\$3.07	1st Repump	\$0.18	
Over 1,000,000	0 \$2.25			2 <sup>nd</sup> Repump	\$0.25	

The City is not required to raise rates annually. The City makes no representation as to whether either a rate increase will be approved in any future Fiscal Years, or, if a rate increase is approved in any Fiscal Year, as to the nature and extent of any such rate increase. Nevertheless, the City will maintain its debt service coverage requirements under existing bond ordinances.

#### WATER SYSTEM FINANCIAL INFORMATION AND COVERAGE STATEMENT

## **Operating Revenues and Expenses**

About 83% of water sales revenues are derived from charges to retail customers. The remaining water revenues are from sales of water provided on a wholesale basis under inter-jurisdictional agreements with 33 surrounding cities and water districts. The total number of customers in Fiscal Year 2012 was approximately 164,000.

Operation and maintenance expenses include the cost of labor, materials, supplies and contractual services and represent the normal cost of System operation. Operation and maintenance expenses are assumed to increase slightly during Fiscal Years 2014 through 2016. The projected increases in operation and maintenance expenses take into consideration growth in the System and price inflation as well as the offsetting effects of staff reductions and improvements in cost efficiencies.

## Accounting, Budgeting and Auditing Procedures

The Water Services Department is an enterprise activity whose financial records are audited annually and reported in conformity with generally accepted accounting principles for governmentally-owned water utilities. The Water Services Department operates the System on the accrual basis system of accounting, where revenues are recorded when earned and expenses are recorded when incurred.

An annual budget of estimated receipts and disbursements for the coming Fiscal Year is prepared by the Director of Water Services under the direction of the City Manager and is presented to the City Council in March for approval after a public hearing. The Fiscal Year of the System is May 1 through April 30. The budget lists estimated receipts by funds and sources and estimated disbursements by funds and purposes and includes a statement of the rates required to raise each amount shown on the budget as coming from System revenues.

The financial records of the System are audited annually by a firm of independent certified public accountants in accordance with generally accepted auditing standards. For Fiscal Year 2008, the annual audit was performed by KPMG, LLP, Kansas City, Missouri. For Fiscal Years 2009-2012, the annual audit was performed by BKD, LLP, Kansas City, Missouri ("BKD"). Copies of the audit reports of the past five years are on file in the City Clerk's office and are available for review.

### **Financial Statements**

The City maintains its financial records on the basis of a Fiscal Year ending April 30. Such financial statements have been examined by BKD. The City did not ask BKD to perform any additional work or any post-audit procedures more recently than the April 30, 2012 audit with respect thereto.

The tables on the following pages provide the Water Fund's balance sheets and income statements for the Fiscal Years ended April 30, 2008 through 2012.

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## City of Kansas City Missouri Water Fund Statement of Net Assets

# Audited for Fiscal Years ending April 30, 2008-2012

٨	_	_	_	4	_
А	c	c	e	т	c

Assets	2008	•	2009	•	2010	•	2011	•	2012
Current assets:									
Cash and cash equivalents	\$ 863,408	\$	335,592	\$	581,914	\$	1,650,868	\$	3,173,573
Investments	3,242,332		1,575,296		1,567,142		3,225,858		8,850,612
Accounts receivable, net	12,585,884		13,247,479		11,056,642		15,300,787		14,381,331
Accrued interest receivable	150,231		52,264		90,118		173,140		173,959
Current portion of notes receivable	291,259		316,964		477,148		504,919		550,240
Inventories	2,153,974		2,316,166		2,062,190		2,341,134		2,415,413
Prepaid expenses	507,026		484,671		-		-		-
Due from other funds	937,498		229,693		43,826		391,082		30,152
Total unrestricted current assets	20,731,612		18,558,125		15,878,980		23,587,788		29,575,280
Restricted assets:									
Cash and cash equivalents	2,840,402		2,505,295		8,940,205		8,017,760		5,703,876
Investments	4,733,889		26,635,088		6,276,304		4,619,490		15,478,885
Accrued interest receivable	564,074		342,096		693,611		330,100		252,221
Total restricted current assets	8,138,365		29,482,479		15,910,120		12,967,350		21,434,982
Total current assets	28,869,977		48,040,604		31,789,100		36,555,138		51,010,262
•	11.127.000		11 512 210		10.522.012		20.077.150		12 150 210
Investments	11,137,898		11,613,249		10,622,813		28,077,160		43,459,349
Restricted assets-investments	50,045,238		63,600,103		83,086,017		50,191,184		59,262,280
Special assessments receivable, net of allo			48,078		34,336		13,886		11,015
Notes Receivable	6,801,602		6,716,220		9,971,012		9,357,450		8,827,759
Debt issuance costs, net	1,505,353		4,419,139		4,208,857		4,020,827 563,674,078		4,264,767
Capital Assets, depreciable, net Capital Assets, nondepreciable	483,133,559 68,856,211		481,905,313 101,762,269		489,055,542 123,942,371		86,651,063		585,378,985 95,998,216
Total assets	\$ 650,422,969	\$	718,104,975	\$	752,710,048	\$	778,540,786	\$	848,212,633
Total assets	Ψ 030,122,909	Ψ	710,104,775	Ψ	732,710,040	Ψ	770,540,700	Ψ	040,212,033
Liabilities and Net Assets									
Current liabilities:									
Accounts payable	\$ 4,615,634	\$	4,517,788	\$	5,778,591	\$	5,868,776	\$	5,279,562
Current portion of compensated absences	152,954		718,408		677,366		688,391		607,774
Accrued payroll and related expenses	1,645,411		2,575,795		419,902		551,350		675,111
Contracts and retainage payable	196,187		303,905		170,753		275,274		465,394
Other liabilities	114,064		450,597		262,183		863,979		863,980
Current portion of due to other funds	541,304		579,670		493,702		787,148		388,286
Current portion of claims liability	1,448,311		1,326,763		1,390,512		1,667,197		1,518,013
Total current liabilities	8,713,865		10,472,926		9,193,009		10,702,115		9,798,120
Liabilities payable from restricted assets:									
Accrued interest and fiscal agent fees	2,900,730		1,938,198		4,164,511		3,939,588		4,079,950
Current portion of revenue bonds payable	12,728,329		11,290,104		16,539,098		17,384,537		18,100,341
Contracts and retainage payable	719,478		647,548		591,626		1,542,874		1,760,833
Customer deposits	1,169,518		1,003,047		865,605		1,364,165		1,211,247
Total liabilities payable from restricte	17,518,055		14,878,897		22,160,840		24,231,164		25,152,371
Total current liabilities	26,231,920		25,351,823		31,353,849		34,933,279		34,950,491
Claims liability	3,799,194		4,137,356		4,244,489		5,235,283		4,469,352
Compensated absences	2,795,992		2,329,019		2,018,514		1,944,252		2,213,803
Pension liability	1,057,828		961,323		2,251,581		3,363,131		4,310,573
Postretirement liability	1,105,266		2,570,350		3,810,081		4,178,628		4,525,571
Revenue bonds payable	179,008,953		235,068,644		242,979,471		225,911,050		260,557,305
Total liabilities	213,999,153		270,418,515		286,657,985		275,565,623		311,027,095
Net assets:									
Invested in capital assets, net of related de	, , , , , , , , , , , , , , , , , , ,		428,340,318		438,188,214		455,704,677		470,155,178
Restricted	8,512,872		4,887,540		12,703,629		11,382,337		10,008,982
Unrestricted	21,272,098		14,458,602		15,160,220		35,888,149		57,021,378
Total net assets	436,423,816	d	447,686,460	d.	466,052,063	ф	502,975,163	ф	537,185,538
Total liabilities and net assets	\$ 650,422,969	\$	718,104,975	\$	752,710,048	\$	778,540,786	\$	848,212,633

# City of Kansas City, Missouri Water Fund Statements of Revenues, Expenses, and Changes in Fund Net Assets Audited for Fiscal Years Ending April 30, 2008 - 2012

	2008	2009	2010	2011	2012
Operating revenues:					
Watersales	\$ 78,251,144	\$ 79,369,329	\$ 79,402,865	\$ 104,809,250	\$ 113,795,787
Other water revenue	1,802,063	2,401,532	3,051,231	3,043,482	4,425,641
Income from jobbing, contract work and					
misce lla ne ous revenues	3,986,649	4,360,006	5,729,988	7,355,893	7,026,768
Total operating revenues	84,039,856	86,130,867	88,184,084	115,208,625	125,248,196
Operating expenses:					
Power and pumping	5,417,959	5,065,124	4,540,886	4,955,130	4,844,668
General and electric al maintenance	3,019,538	2,282,020	2,517,212	2,541,658	4,034,162
Purific ation	10,971,583	11,078,707	11,549,618	11,892,058	11,020,685
Laboratory services	2,605,167	2,960,532	2,433,467	2,477,521	2,470,682
Transmission and distribution	10,242,782	13,925,182	13,303,041	11,488,867	21,122,053
Customerservice	7,574,259	7,156,669	7,040,500	7,295,986	7,236,663
Me c ha n ic a l ma inte n a n c e	2,916,693	3,122,413	2,634,981	2,754,732	2,751,426
Customerac counting and collection	4,331,504	4,520,029	4,258,158	4,963,537	5,184,265
Administrative and general	14,278,131	13,423,079	14,477,547	16,123,070	14,585,368
Depreciation and amortization	10,181,650	10,270,730	10,260,837	10,708,385	13,793,442
Total operating expenses	71,539,266	73,804,485	73,016,247	75,200,944	87,043,414
Operating income	12,500,590	12,326,382	15,167,837	40,007,681	38,204,782
Nonoperating revenues (expenses):					
Interest on investments	2,949,674	1,564,504	2,555,115	1,625,220	1,457,756
Interest expense and fiscal agent fees	(5,998,133)	(6,375,875)	(7,208,735)	(9,103,896)	(9,774,619)
Gain on disposal of fixed assets	(27,291)	225,141	(7,600)	(214,237)	(192, 146)
Total nonoperating revenues (expenses)		(4,586,230)	(4,661,220)	(7,692,913)	(8,509,009)
Net income before capital contributions	9,424,840	7,740,152	10,506,617	32,314,768	29,695,773
Capitalcontributions	10,014,871	3,522,492	7,858,986	4,608,332	4,514,602
Change in net assets	19,439,711	11,262,644	18,365,603	36,923,100	34,210,375
Totalnet assets - beginning of the year	416,984,105	436,423,816	447,686,460	466,052,063	502,975,163
Totalnet assets - end of the year	\$ 436,423,816	\$ 447,686,460	\$466,052,063	\$ 502,975,163	\$ 537,185,538

# CITY OF KANSAS CITY, MISSOURI $\label{eq:water} \text{WATER FUND}$

#### Historical Debt Service Coverage Calculation

# For Fiscal Years Ending April 30, 2008 through April 30, 2012

	2008	2009	2010	2011	2012
Total Operating Revenues	84,039,856	86,130,867	88,184,084	115,208,625	125,248,196
Less: Total Operating Expenses	71,539,266	73,804,485	73,016,247	75,200,944	87,043,414
	12,500,590	12,326,382	15,167,837	40,007,681	38,204,782
Plus: Depreciation and Amortization	10,181,650	10,270,730	10,260,837	10,708,385	13,793,442
Administrative Fees			4,725,767	4,725,768	4,314,746
Principal of Contracts Received					
from Other Governmental Units	211,940	496,006	1,055,313	565,529	510,426
Non-Cash OPEB			1,239,731	368,547	346,943
Interest Income	2,949,674	1,564,504	2,555,115	1,625,220	1,457,756
	13,343,264	12,331,240	19,836,763	17,993,449	20,423,313
Net Revenues Available for Debt Service	25,843,854	24,657,622	35,004,600	58,001,130	58,628,095
Debt Service - Senior Bonds			15,594,515	20,460,088	20,673,288
Debt Service Coverage - Senior Bonds			2.24	2.83	2.84
Debt Service - Senior and Subordinate Bonds			18,325,515	23,284,828	23,495,011
Debt Service Coverage - Senior and Subordinat	e Bonds		191	2.49	2.50
Debt Service - All Water Obligations *	19,906,343	21,188,579	20,591,443	27,795,629	27,974,952
Debt Service Coverage - All Water	1.30	1.16	1.70	2.09	2.10
Obligations*					

 $<sup>\</sup>hbox{$^*\!\!Debt Service on all Water Obligations includes capital lease obligations}$